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TO: EQC Land Use/Environmental Trends Subcommittee
FROM: Larry Mitchell, EQC staff
DATE: March 8, 2000
SUBJECT: Agency responses to Subcommittee information request

The EQC Land Use/Environmental Trends Subcommittee interim work plan includes the following tasks:

- 1) evaluate state agency efforts to identify and utilize environmental indicators in tracking program efforts through staff contacts with agency directors and environmental program managers, and
- 2) request reporting agencies (DNRC, Agric, DEQ) to identify and incorporate quantifiable environmental trend information into biennial compliance and enforcement reports where practical and applicable.

This has been attempted through staff phone contacts and by use of a letter from Chairman Crismore to the directors of the Departments of Environmental Quality, Natural Resources and Conservation, Agriculture, and Fish, Wildlife and Parks, and to the director of the Montana Natural Resource and Information System. These agencies have all responded to the Subcommittee's request. The following is a summary of those comments.

1) What environmental data is presently collected by Montana's land use/environmental programs and a description of how valuable that data is in being able to describe conditions and identify environmental trends over time?

The Department of Agriculture produces a detailed annual Montana Agricultural Statistics report on the status of the agriculture industry which includes statistics on production, prices, land in production/irrigation, farm size and numbers, predator losses and more. The pesticide program and the ground water program has a limited (a few hundred wells) pesticide monitoring effort restricted by resources to a few site specific locations. Some pesticide regulatory program information is available to minimally describe impacts to the environment on a site specific basis.

The Department of Fish, Wildlife and Parks (FWP) gathers "extensive" but undefined annual information on fish and wildlife populations and habitats for the purpose of managing populations, setting regulations, and harvest quotas. The agency referenced a stream database that provides data on fish diversity and abundance. Habitat information in wildlife management areas is gathered but not described.

The Natural Resource Information System (NRIS) stores information from other groups and agencies and collects data through the Natural Heritage Program on plant and animal species of special concern (threatened, endangered, imperiled). Information stored, to various degrees of accuracy or completeness, includes databases of information on well logs, census, leaking underground storage tanks, TMDLs, volunteer water monitoring, public drinking water supply wells, wetlands inventory, Montana Rivers Information System, mine locations, wastewater permits, landfills locations, and others (see the NRIS website at <http://nr.is.state.mt.us/>). A significant amount of resources currently unavailable at NRIS would be required to assess the value, completeness, and accuracy of many of these databases and to determine their value in developing environmental indicators.

Department of Natural Resources and Conservation (DNRC). The department's three divisions that have programs which provide compliance and enforcement reports to the EQC responded to the inquiry regarding environmental indicators. According to the response, data collected by these division programs include water project safety inspections, high hazard dam monitoring, state reservoir storage data and stream monitoring at 30 stations, revenue from water and energy sales at the Toston Dam, flood damage costs, chronically dewatered watercourses, irrigated acres, types of water use, authorizations of change in water use, water rights closure areas, ground water development, forestry BMP application rates and effectiveness, and the annual Montana Forest Insect and Disease report. The agency offered to provide additional information as requested by the EQC.

The Department of Environmental Quality (DEQ) is a large agency with the responsibility to administer many state and federal laws and regulations having a direct or indirect impact on the quality of Montana's environment. It collects a great deal of scientific, technical, and regulatory information that is usually gathered for very specific purposes. In response to this question, the agency provided the Subcommittee with a list of agency programs and personnel contacts.

A description or listing what information is collected, for what purposes, over what period of time, and a description of whether or not the agency believes the information would be useful in describing the condition of or trends in the quality of the environment was not provided. A specific answer to the question is left to the Subcommittee to develop more specific questions about particular programs or department efforts.

2) What environmental indicators have been developed (if any) by the programs and a description of how useful those indicators are in describing conditions and identifying environmental trends?

Agriculture - Trends in agriculture production are available. Indicators of environmental conditions have not been developed. It appears that with significant effort, certain land use trends could be identified based upon the information in the annual Montana Agricultural Statistics report. The pesticide program has limited environmental condition descriptive value.

FWP - No indicators were identified or described. Trends in fish and wildlife populations may be possible to identify but the agency believes that they cannot be attached to environmental conditions or trends. Fish and wildlife populations and habitat conditions are influenced more by agency management decisions than by environmental conditions. The agency may have misunderstood what the Subcommittee was asking for in its

December 28, 1999 letter.

NRIS - has not developed any environmental indicators. If legislatively directed and supported, NRIS could work with agencies and other information generators to develop data standards and usable data sets that could be useful in identifying various environmental conditions and trends. NRIS could act as an information clearinghouse/library for natural resource information.

DNRC - With certain exceptions, the agency did not reference many specific environmental indicators that are currently being used by the agency to determine the condition and trends in the quality of environment. The Water Rights Bureau and Water Operations Bureau provided suggestions as to what trends in land and water use could be identified over time using information that they collect and the Forest Management Division referenced an annual report on forest insects and disease.

The state Water Projects programs generally suggested program outcomes as measurements. The Water Operations Bureau identified the use of flood damage information as an indicator for the need for floodplain delineation efforts, and the number of miles of dewatered streams as a useful indicator although the legal definitions of a dewatered stream and physically dewatered streams do not always coincide. The Water Rights Bureau has not developed any environmental indicators but provided a useful listing of suggestions for manipulating existing agency data into descriptors of environmental conditions and trends, particularly in the area of land and water use and development. The Oil and Gas Division reported that it collects no environmental data and has not developed any environmental indicators. However, the Division produces statistics on oil and gas resources and reserves, rates of resource development and removal, environmental compliance of regulated activities, and the status and impact of the abandoned oil and gas well plugging efforts. The Forestry Division concludes that its data gathering efforts are designed to obtain and identify compliance with forest management requirements and not to measure environmental quality indicators. There seems to be no recognition that current state policies and requirements regarding forest management have any impact on the eventual condition and trends in the quality of Montana's environment. The division suggests that, because of the expense and volume of information necessary to make conclusions, monitoring discrete environmental indicators is losing favor to more holistic extensive surveys of environmental conditions but it does not describe or suggest what those surveys show or how they would be or are being conducted to describe the condition and trends in the quality of the environmental resource for which the agency has responsibility.

DEQ - Agency programs that collect data generally do not develop environmental indicators. It is uncertain what criteria the agency, the legislature, or the public could refer to in order to determine what impact the establishment and implementation of specific environmental policies is having on the condition and trends in the quality of Montana's environment. The agency described two current and prospective efforts that it believes may provide environmental condition and trend information in the future; the establishment and effectiveness monitoring of TMDLs on impacted streams, and site specific air quality condition descriptions based upon established monitoring networks and existing databases.

3) Whether or not it is possible to narratively or otherwise incorporate a qualitative description of environmental conditions and trends into the biennial compliance and enforcement report to the EQC.

Agriculture - Section 75-1-314, MCA does not ask for environmental conditions and trends; only compliance and enforcement trends. Agency is reluctant to attempt to include more than that given limited information and staff resources. With legislative guidance and funding, information could be obtained.

FWP - no response..not required to report under Section 75-1-314, MCA.

NRIS - not applicable

DNRC - The Water Operations and Water Rights Bureaus believe that it would be possible to incorporate some conclusions about environmental conditions and trends relative to their programs in the Compliance and Enforcement report. The Oil and Gas Division is non-committal regarding this question and requires further guidance from EQC. The Forestry Division can incorporate a narrative description of the trends and conditions identified in the annual Insects and Disease report and the forest practices BMP information into the Compliance and Enforcement report.

DEQ - The agency responds that regulatory program compliance and enforcement efforts are not useful in describing the condition or quality of the environment. The DEQ maintains that there is a disconnect between the condition and quality of the physical environment and the agency's compliance and enforcement efforts; that each requires a different set of measures. The quantitative trend information requested in Section 75-1-314(2) addresses compliance and enforcement information and not qualitative environmental condition or trend information.

4) Your agency's recommendations and suggestions for documenting the physical conditions and trends in Montana's environmental resources

Agriculture - The information requested has value but is not regularly collected by the agency. The annual statistics report has another purpose. The agency is willing to address other needs with legislative guidance and support.

FWP- No recommendations. EQC may wish to work with other agencies that collect environmental trend information. The agency may have misunderstood the information requested in the EQC letter.

NRIS advises that electronic data bases are most useful when they are maintained (kept current and complete) but, by doing so, the ability to identify trends over time is reduced without archiving the information periodically. Also, documentation of data sets or changes in data is necessary to draw conclusions and comparisons over time. EQC could recommend that agencies provide data or certain data to NRIS for storage and electronic distribution. The agencies need to work closely with NRIS to provide information that would be useful, fully documented, and of value to the potential user. NRIS and the agencies would likely need considerable guidance and additional resources to develop a reliable and useful system.

DNRC recommendations include creating a database for dam and reservoir information in cooperation with NRIS, and adding any identifiable trends in water rights to the biennial EQC Compliance and Enforcement

Report. The Oil and Gas Division suggests that agencies should not document or draw conclusions about environmental conditions and trends or review the data that is collected. The EQC should develop objective indicators and request that agencies produce but not interpret the data. The Forestry Division concludes that the documentation of the physical condition and trends in Montana's resources is a substantial task, and that individual agencies and programs are not designed to provide such holistic or collective ecological information.

DEQ - non responsive

SUMMARY

- ▶ Agencies provided general information regarding information collected with little or no description of how valuable that data is in being able to describe conditions and identify environmental trends over time (exception; DNRC Water Rights Bureau). With exceptions (Agriculture) a description of the data and the time over which it had been collected or a discussion of its consistency was lacking.
- ▶ Despite the lack of specific responses to this request, agencies gather a significant amount of data and information regarding the operation of their environmental programs. They are able to use this information to describe program efforts and activities. However, program efforts are rarely described in terms of "what is the condition of the environment as a result of the program and what are the trends over time." There is no feedback loop to quantify environmental conditions or trends in the quality of the resource or environment for which the program is intended to address.
- ▶ Agencies do not use environmental indicators to describe program outcomes
- ▶ Agencies need further guidance and direction in terms of what information the EQC is seeking. The implication is that the information is available or is obtainable with additional guidance and resource support.
- ▶ Some agencies did not understand the nature of the Subcommittee's request. The original 3 week time frame for response (December 28 to January 21) may have restricted some agencies ability to respond adequately.

